

IN THE CLAIMS:

On page 13, in line 1, cancel "Patent Claims" substitute --WE CLAIM AS

OUR INVENTION:-- therefor.

Please cancel claims 1-20.

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Please add the following new claims 21-40:

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1. 21. A method for producing a surface mounting optoelectronic component having a base body, an optoelectronic transmitter/receiver that is arranged in a recess of the base body, and an optical device that covers the recess, said method comprising the steps of:

10 preparing the base body with the optoelectronic transmitter/receiver arranged in the recess;
 filling the recess of the prepared base body with a transparent hardenable casting compound;
 then placing the optical device onto the as yet uncured casting
15 compound; and
 then curing the casting compound.

2. 22. The method as claimed in claim 21, wherein the step of preparing the base body comprises the steps of:

20 coating a conductor strip with a thermoplast housing while simultaneously forming the recess of the base body into a top surface of the thermoplast housing, a portion of said conductor strip being situated inside the recess;
 mounting the optoelectronic transmitter/receiver on said portion of the conductor strip situated inside the recess; and
25 filling the recess of the base body with a transparent curable casting compound having thermal characteristics adapted to the thermoplast housing material.

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3. 23. The method as claimed in claim 21, wherein the recess of the base body is filled with the casting compound to a level such that, during the subsequent placement of the optical device, essentially no casting compound runs over an edge of the recess.

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4. 24. The method as claimed in claim 23, wherein the recess is filled with casting compound essentially to the edge of the recess such that, after the recess is filled with casting compound, a fillet develops owing to the surface tension of the casting compound; and wherein the optical device has a shape in a region contacting the casting compound that no casting compound runs over the edge of the recess when the optical device is subsequently placed onto the casting compound.

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5. 25. The method as claimed in claim 21, wherein said optical device is placed from above, without pressure, onto one of the base body or at least one seating element attached to said base body within said recess.

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6. 26. The method as claimed in claim 21, wherein the casting compound is cured by the influence of heat.

of:

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prior to filling the recess, producing an optical device by one of casting, pressing, or injection processing;

then readying and transporting the optical device as bulk material of optical devices;

then automatically picking a respective optical device from the bulk material; and

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then automatically positioning the picked optical device over the base body.

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28. A method for producing a surface mounting optoelectronic component having a base body, an optoelectronic transmitter/receiver that is arranged in a recess of the base body, and an optical device that covers the recess, said method comprising the steps of:

5 preparing the base body with the optoelectronic transmitter/receiver arranged in the recess;

10 then filling the recess of the prepared base body with a first transparent hardenable casting compound;

15 then readying a casting mold half and filling the mold half with a second transparent hardenable casting compound;

20 then at least partially curing at least one of the first casting compound in the recess of the base body and the second casting compound in the mold half;

25 then casting the optical device onto the base body by joining the base body and the mold half properly positioned, such that second casting compound in the mold half comes into contact with a surface of the first casting compound in the recess of the base body;

30 then curing at least one of the second and first casting compound; and then removing the mold half from the base body with the cast-on optical device.

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The method as claimed in claim 28, further comprising the steps of:

25 prior to joining the base body and the mold half, wetting the surface of the first casting compound.

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30. The method as claimed in claim 29, wherein the step of wetting the surface of the first casting compound comprises the steps of:

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turning the base body about a horizontal axis such that an opening of the recess is directed downwardly; and
at least superficially immersing the base body in liquid casting compound.

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31. The method as claimed in claim 28, wherein the at least partial curing of the first casting compound is by heat treatment.

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14. 32. The method as claimed in claim 28, wherein the at least partial curing of the second casting compound is by heat treatment.

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15. 33. The method as claimed in claim 28, further comprising the steps of:
leading a number of base bodies on a first strip; and
leading a number of mold halves on a second strip,
wherein the first strip and the second strip are led in parallel at least during the step of casting the optical device onto the base body.

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16. 34. The method as claimed in claim 28, further comprising the steps of:
leading a number of base bodies on a first strip;
combining a number of mold halves in a group; and
connecting the group of mold halves, such that they can be detached, to a corresponding number of base bodies at least during the step of casting the optical device onto the base body.

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17. 35. The method as claimed in claim 28, wherein the base body and the mold half are joined at a temperature of approximately 80°C.

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36. The method as claimed in claim 28, wherein the second casting compound is cured at a temperature of approximately 150°C.

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37. The method as claimed in claim 28, wherein the mold half is removed from the base body at a temperature of approximately 80°C.

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38. A surface mounting optoelectronic component comprising:
a base body having a thermoplast injection housing and a coated conductor strip secured to the housing, said base body having a recess formed therein with a portion of the conductor strip situated inside the recess;
an optoelectronic transmitter/receiver arranged in the a recess of the base body and mounted on the portion of the conductor strip situated inside the recess;
a transparent hardenable casting compound provided in the recess, said casting compound having thermal characteristics adapted to those of the thermoplast housing material; and
an optical device covering the recess and cast onto the casting compound such that a seating surface of the optical device is in surface-wide contact with the casting compound.

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39. The surface mounting optoelectronic component as claimed in claim 38, wherein the recess comprises a ring channel surrounding the recess.

40. The surface mounting optoelectronic component as claimed in claim 38, wherein the base body comprises a number of seating elements for seating of the optical device, said seating elements being arranged at a margin side relative to the recess.